

**REMARKS/ARGUMENTS**

Applicants thank the Examiner for review of the present application as evidenced by the Office Action dated August 16, 2007. Applicants respectfully request reconsideration of the restriction requirement contained therein.

Claims 1, 7-8 and 17-18 have been amended. New claims 19-20 have been added. Claims 1-20 remain in the application. No new matter has been entered into the application by these amendments.

On the Form PTOL-326 accompanying the Office Action, the Examiner indicated an objection to the oath or declaration. However, in the attached Office Action the Examiner does not mention the basis for the objection, and no other explanatory documentation, such as form PTO-152, is attached to the Office Action. In the absence of further explanation by the Examiner, applicants do not know how to correct the declaration to remove the Examiner's objection. Applicants therefore respectfully request the Examiner further explain the objection to the declaration, or in the alternative, withdraw the objection.

The Examiner objected to the disclosure because the terminology "ODMA" is not spelled out and explained in the specification. ODMA stands for Orthogonal Domain Multiple Access, as is explained in the non-patent literature provided to the Examiner with the Information Disclosure Statement at the time of filing the application. Applicants have amended the specification define ODMA consistent with the disclosed documents, and request the Examiner withdraw this objection.

Turning now to the merits, the Examiner rejected claims 1-18 under U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,788,702 to Young et al. Applicants respectfully traverse this rejection.

In rejecting claim 1, the Examiner asserts that Figure 5 of Young designates one of the broadcast channels as a common bootstrap channel. Applicants disagree. As described in the specification describing Figure 5 of Young, "Each 125 millisecond frame includes a number of bootstrap minislots 40, broadcast slots 45, and reservation/standby slots 50. Further, each frame includes a plurality of frequencies,

known as channels 55." (col. 6 lines 51-54) There is no discussion of designating one of the channels in each frame as a common bootstrap channel. Claim 1 is allowable.

The Examiner also notes that Young substantially teaches a cycle of time divided into frames, which are then divided into slots. The Examiner then asserts the bootstrap slots, shown in Young, anticipate applicants' claimed bootstrap channel, explaining that "[a] bootstrap slot can be interpreted as a bootstrap channel in a broad interpretation." Applicants disagree that a slot can be interpreted as a channel. Both Young and applicants' claims define a slot in terms of time and a channel in terms of frequency. In fact, the cited reference discloses a plurality of bootstrap slots in each channel. In contrast, applicants' invention, as recited in claim 1, designates one of a plurality of channels as a common bootstrap channel, which is divided into a plurality of bootstrap slots. Applicants do not agree that a slot – defined as an amount of time on a given frequency – is the same as the given frequency. Because the cited reference does not disclose designating one of the plurality of broadcast channels as a common bootstrap channel, as recited in Applicants' claim 1, claim 1 is therefore allowable.

Furthermore, applicants disagree that the cited reference discloses a node broadcasting during (1) a first bootstrap slot on a common bootstrap channel, and (2) a second dynamically assigned bootstrap slot on its assigned channel. Each node in applicants' invention uses a first bootstrap slot assignment on the common bootstrap channel to broadcast, to its one-hop neighbors, slot assignment information regarding any broadcast channel. Further, each node in the invention uses a dynamically assigned second bootstrap slot to broadcast, on its assigned channel, slot assignment information relating to the assigned broadcast channel only to other nodes within one hop of the node and on the assigned channel. Note that the first bootstrap slot is on the common bootstrap channel, while the second bootstrap slot is on the channel to which a node is assigned. Young does not employ the two-tiered approach to using bootstrap slot assignments as recited in applicants' amended claim 1, and applicants' claim 1 is therefore allowable.

Lastly, applicants note that on page 2 of the Office Action the Examiner asserts Young "substantially teach" portions of the invention. Applicants do not believe that a "substantial teaching" is the standard to be used for a rejection based upon 35 U.S.C. § 102(b), and that the Examiner's rejection of claim 1 is therefore improper. Applicants

respectfully request the Examiner to re-evaluate the rejection under Young and determine whether the disclosure of Young *anticipates* applicants' claimed invention.

Claims 2-9 depend directly or indirectly from allowable claim 1 and are therefore allowable for at least the same reasons claim 1 is allowable. Additionally, with respect to claim 3, the Examiner asserts column 7 line 58 of Young teaches that slot assignment information for communication between nodes assigned to different channels is fixed in time during successive frames. Actually, column 7 line 58 is part of a discussion of how to assign bootstrap slots. Instead of the fixed bootstrap slot assignment disclosed in Young, applicants' claim 3 recites that it is the slot assignment information, broadcast during the bootstrap slots, that is fixed in time during successive frames. Furthermore, Young does not disclose that such slot assignment information for communication between nodes *assigned to different channels* is fixed in time during successive frames. The discussion at column 7 of Young is not discussing multi-channel slot assignment. For these reasons, claim 3 is therefore allowable.

Applicants have amended claim 7 to recite identifying a node having movement characteristics that prevent the identified node from being assigned a time to broadcast, and preferentially loaning or yielding a slot assignment to that node. Young does not disclose or suggest such preferential slot assignment an identified node having movement characteristics preventing it from being assigned a time to broadcast, and claim 7 is therefore allowable.

With respect to claim 8, the Examiner asserts that Figure 3 and columns 4 lines 21 and 19-27 of Young disclose the recited subject matter. Applicants disagree. The cited passages of Young provide a generic depiction of a node broadcasting information to its neighbors. Node 2 in Figure 3 of Young has 5 one-hop neighbors. However, node 1 also has 5 one-hop neighbors, and nodes 5, 6 and 8 each have 4 one-hop neighbors. Neither this nor any other portion of Young discloses identifying a node in a network as having significantly more nodes within one hop of the node than substantially all of the other nodes in the network. Furthermore, Young does not disclose selectively withholding information about the nodes within one hop of the identified node from the other nodes in the network during the first and second bootstrap slot allocations, as recited in claim 8. Claim 8 is therefore allowable for at least this additional reason.

The Examiner rejected independent claim 10 on the same basis claim 1 is allowable. Applicants incorporate by reference herein the arguments made above with respect to the allowability of claim 1. Based on those arguments, applicants' claim 10 is also allowable. Claims 11-17 depend from allowable claim 10 and are therefore allowable for at least the same reasons claim 10 is allowable. Claim 13 contains subject matter similar to allowable claim 3 and is therefore allowable for at least the same reasons claim 3 is allowable. Claim 17 has been amended to recite subject matter similar to amended claim 7 and is allowable for the same reasons claim 7 is allowable.

With respect to claim 18, the Examiner once again asserts that a slot can be interpreted as a channel in a broad interpretation. As previously stated, both applicants' disclosure and Young define a channel in terms of frequency and a slot in terms of time. Applicants therefore believe the Examiner is incorrectly defining a slot as a channel. Furthermore, the Examiner mischaracterizes Figure 6 as showing a plurality of bootstrap slots distributed across all channels. Column 7 lines 11-20, which specifically describe Figure 6, state that the Figure depicts eight frames representative of a *single channel* over a one second period. F0, F1, F2, etc. in Figure 6 are frames of time, not frequency channels. Once again, frames of time are not equivalent to frequency channels. Young does not teach or disclose a second plurality of bootstrap slots distributed across all the channels, wherein each node receives slot allocation information from other nodes that are within one hop of said node and on the same assigned channel. For these reasons, claim 18 is therefore allowable.

Applicants have added new claims 19 and 20. New claim 19 depends from allowable claim 7 and further recites that the movement characteristics include speed of the node. New claim 10 also depends from allowable claim 7 and further recites that the movement characteristics include altitude of the node. Young does not discuss taking into account the speed or altitude of a node when making assignments to nodes. Claims 19 and 20 are therefore allowable.

Accordingly, with entry of this amendment and consideration of the arguments and remarks contained herein, all pending claims are now allowable, and a notice of Allowance is earnestly solicited. The Examiner is invited to contact the undersigned attorney if further issues remain in the prosecution of this application.

Respectfully Submitted,



Nathan O. Jensen

Reg. No. 41,460

Attorney for Applicant

Rockwell Collins Inc.  
Intellectual Property Department  
400 Collins Road NE M/S 124-323  
Cedar Rapids, IA 52498  
Telephone: (319) 295-1184  
Facsimile No. (319) 295-8777  
Customer No.: 26383